

Sunoco Facility: Marcus Hook
Report Title: Semi-Annual Consent Decree Compliance Report # 15
Reporting Period: 01/01/13 – 06/30/13

Paragraph 114 Reporting and Recordkeeping of Affirmative Relief / Environmental Projects and Emission Data in Section V with Certification

I. Progress Report for Implementation of (section V) Affirmative Relief/Environmental Projects

A. NO_x Emissions Reductions from the FCCU

The amended consent decree required the installation of a SNCR at the FCC unit by 1/1/12. The SNCR was installed as required. The FCC unit was shutdown in early December of 2011 and the operating permit rescinded.

B. SO₂ Emissions Reductions from the FCCU

The amended consent decree had provisions for SO₂ emissions that were applicable in 2011. The total annual SO₂ emission was limited to 2200 tons. Sunoco was compliant with that provision in 2011. The FCC unit was shutdown in December of 2011 and the operating permit rescinded.

C. Control of PM Emissions from FCCU

Paragraph 16 –The FCC unit was shut down in December of 2011 and the operating permit rescinded.

D. Control of CO Emissions from FCCU

Paragraph 19 – The FCC unit was shutdown in December of 2011 and the operating permit rescinded.

E. NSPS Subparts A and J Applicability at FCCU Regenerators

Paragraph 25 – FCC unit was shutdown in December of 2011 and the operating permit rescinded.

F. NO_x Emission Reductions from Heaters and Boilers

Paragraph 31 – The final detailed NO_x Control Plan was submitted to EPA and the Appropriate Plaintiffs/Intervenors on 06/14/10. Per the June 2009 CD Amendment, the plan was modified to delete any reduction from the Tulsa refinery.

G. SO₂ Emissions Reductions from and NSPS Applicability for Heaters and Boilers

Paragraph 37 – No changes have been made since the last progress report. The Refinery was shutdown in December of 2011 and the heaters operating permits were rescinded.

I. Sulfur Recovery Plants - NSPS Applicability

The sulfur Recovery Units were shutdown in December of 2011 and the operating permits rescinded.

J. Hydrocarbon Flaring Devices

Paragraph 48 – Alternative Monitoring Protocols (“AMPs”) for the 10 Plant and 12 Plant Flares were submitted to EPA on November 12, 2008 and implemented beginning January 1, 2009. The AMPs were approved by the EPA on May 19, 2009.

The 10 Plant Flare serviced the Fluid Catalytic Cracking Unit (FCC). The FCC unit was shutdown in December of 2011 and the operating permit rescinded.

The 12 Plant Flare serviced a crude unit and two desulfurizing units. Those units were shutdown in December of 2011 and the operating permit rescinded.

The Alternative Monitoring Protocol for the Main (EC) Flare was submitted on December 10, 2010 and reflected an operating refinery scenario. The AMP for the Main (EC) flare was implemented on January 1st, 2011. EPA approved the Main Flare AMP on 09/21/11.

The AMP deals with separating out high sulfur streams to insure that the normal combustion of the flare is compliant with subpart J requirements. The Refinery was shutdown in December of 2011, there is no longer the possibility of any sulfur in the flare; the AMP requirements are for a refinery that has sulfur streams that could go to the flare, that scenario is no longer valid.

As stated above, there have been no high sulfur flare gas streams generated in the refinery since the main process units were shutdown. Therefore, at this time the Main Flare no longer has the potential to receive high sulfur streams. The Main Flare remains in service for the Propane – Propylene Splitter Area, gaseous storage areas, and some fuel gas. The streams generated in these areas are inherently low-sulfur.

K. Control of Acid Gas Flaring and Tail Gas Incidents

Paragraphs 52 & 53 –Since December of 2011 no acid gas is being generated in the facility.

L. Control of Hydrocarbon Flaring Incidents

Since December of 2011 no high sulfur streams are present in the facility.

M. Benzene Waste NESHAP Program Enhancements

Paragraphs 65-77

1. The BWON exempted quantity was calculated to be 8.17 E-04 MG for the first quarter and 3.52 E-02 MG for the second quarter of 2013. The 2013 projected annual BWON exempted quantity, based on EOL sampling, is calculated to be 3.52 E-02 MG based on samples listed in Appendix I.
2. The laboratory audit required in paragraph 71 was conducted on March 15, 2013. Copy of the report is included in Attachment II.

N. Leak Detection and Repair Program Enhancements

Paragraphs 78-92

1. LDAR Monitoring Technician Refresher Training is conducted by Team Inc on a monthly basis.
2. A Third party Audits of the program was done in July of 2012 and a copy of the audit report was submitted in the in the Semiannual Report # 14. A summary of the Findings and Corrective Actions is included in Attachment III.

O. Incorporation of Consent Decree Requirements into Federally Enforceable Permit(s)

Paragraphs 93-96: No change in this from previous reports.

II. Summary of (section V) Emissions Data

Included herein.

III. Description of Any Problems Anticipated with Meeting (section V) Requirements

N/A

IV. Additional Matters to be Brought to the Attention of EPA and the Appropriate Plaintiff/Intervenor

N/A

Paragraph 112 SUPPLEMENTAL AND COMMUNITY ENVIRONMENTAL PROJECTS (SCEP) AND STATE AND LOCAL ENVIRONMENTALLY BENEFICIAL PROJECTS (SLEBP) in Section VIII with Certification

I. Progress Report for Each SCEP or SLEBP (section VIII)

Paragraph 104: Completed

Paragraph 105: Completed

Paragraph 106: Completed

Paragraph 107: Completed

Paragraph 107A: Completed

Paragraph 107B: Completed

Paragraph 108: Completed

Paragraph 109: Completed

II. Completed SCEP or SLEBP (section VIII)

A. Detailed Description of Each SCEP or SLEBP Project as Implemented

N/A

B. Brief Description of Any Significant Operating Problems Encountered

N/A

C. Certification That Each Project Has Been Fully Implemented Pursuant to the Provisions of this Consent Decree

N/A

D. Description of the Environmental and Public Health Benefits Resulting From Implementation of Each Project (including quantification of the benefits and pollutant reductions, where practicable)

N/A

Appendix I

Sunoco Marcus Hook Refinery

2013 Total Benzene Summary

Unit	2013 1Q Exempt Benzene Total	2013 2Q Exempt Benzene Total	2013 3Q Exempt Benzene Total	2013 4Q Exempt Benzene Total	Projected 2012 Annual Total, MG
	Mg	Mg	Mg	Mg	
Spills	0.00E+00	0	0.00E+00	0.00E+00	0
Hazardous Waste	8.17E-04	1.68 E-02	1.76 E-02	1.76 E-02	3.52 E-02
Dock Pans	0	1.52E-02	0	0	0
Exchanger Cleaning	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Frac Tanks	0.00E+00	0.00E+00	0.00E+00	0	0
Total Quarterly Benzene	8.17 E-04	1.68 E-02	1.76 E-02	1.76 E-02	3.52 E-02

Appendix II

Sunoco Marcus Hook Refinery

BWON Laboratory Report

APPENDIX III
Marcus Hook
LDAR Fourth-Third Party Audit
Findings and Corrective Actions

Finding	Corrective Action
Records identified three (3) light liquid pumps that were not monitored in accordance with the required schedule.	LDAR Monitoring Technician Refresher Training is conducted by Team Inc on a monthly basis. Training includes the importance of data entry to ensure the LaekDAS system generates the correct monitoring schedule.
Six (6) open-ended lines were observed during field walkthroughs of the refinery's process units.	All 6 OELS were immediately repaired. A program is in place to prevent, identify and repair OELS, including daily inspections by technicians and operators
Records indicated that follow-up monitoring of eleven (11) repaired valves was not consistently conducted for the two successive months after repair.	LDAR Monitoring Technician Refresher Training is conducted by Team Inc on a monthly basis. Training includes the importance of data entry to ensure the LaekDAS system generates the correct monitoring schedule.
Records indicated that eight (8) components did not have a first attempt at repair conducted on the components within 5-days after identification of the leaking valve.	LDAR Monitoring Technician Refresher Training is conducted by Team Inc on a monthly basis, emphasizing on the actions that may be performed for first attend of repair, and for components technicians are not able to perform first attempts of repair, the need to reconcile the schedule with the maintenance department prior to the 5th day following identification of a leaking component.
Records indicated that two (2) components were not effectively repaired or placed upon delay of repair within 15 days after identification of the leaking component.	Maintain frequent discussions with the maintenance department on the need to routinely review the leakers list to ensure repairs are conducted within the allotted time.
Refinery records indicated that calibration precision tests were not conducted for two (2) instruments during the three-month period in which the instruments were used for monitoring.	LDAR Monitoring Technician Refresher Training is conducted by Team Inc on a monthly basis including the EPA Method 21 precision calibration test requirements and the need to, before using an instrument, conduct and document calibration precision and response time tests at each leak definition.
During observations of technician monitoring techniques, the audit team observed two technicians that did not consistently monitor at all of the potential leak interfaces on a twin seal valve	LDAR Monitoring Technician Refresher Training is conducted by Team Inc on a monthly basis, including EPA Method 21 monitoring requirements, emphasizing equipment leak interfaces to monitor.
During observations of technician monitoring techniques, the audit team observed that an LDAR monitoring technician did not sample for an interval of at least two times the response time of his monitoring device after he had identified the location of the maximum reading.	LDAR Monitoring Technician Refresher Training is conducted by Team Inc on a monthly basis including EPA Method 21 requirements, emphasizing that twice the response time is the minimum sampling time consistent with the method's intent to identify equipment leaks.
The semiannual reports did not identify the dates of process unit shutdowns that occurred within the semiannual reporting period.	Revised the LDAR semiannual report format to list the dates of process unit shutdowns which occurred within the semiannual reporting period.
Records indicated that two (2) components were leaking above the internal leak definition were not repaired and re-monitored or placed upon delay of repair within 30 days following identification of the	Maintain frequent discussions with the maintenance department on the need to routinely review the leakers list to ensure repairs are conducted within the allotted time.

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leaking component.	
There was one (1) day when an end-of-shift calibration drift assessment for an instrument was documented as failing in the calibration records and one (1) valve measured at greater than 100 ppm was not re-monitored during the scheduled monitoring month	LDAR Monitoring Technician Refresher Training is conducted by Team Inc on a monthly basis including the need to perform a daily calibration drift assessments. Technicians are required to certify that a drift assessment was conducted each shift. When an instrument fails a drift assessment, use the Last-Ins filter in LeakDAS to screen out valves with a measured reading above 100 ppm and pumps with a measured reading above 500 ppm.